UNITED STATES MARINE CORPS
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STUDENT HANDOUT

FORWARD AREA WATER POINT SUPPLY SYSTEM

LEARNING OBJECTIVES:

1. Terminal Learning Objectives:

a. Provided a Forward Area Water Point Supply System (FAWPSS), with the aid of references, operate the system in accordance with TM-08936A-13&P. (1171.01.05)

b. Provided a GPM pump, a water source, tools, oil, grease, fuel, and references, perform preventive maintenance on the pump in accordance with TM-08922A-14. (1171.04.01)

2. Enabling Learning Objectives:

a. Given the necessary equipment, tools and materials, without the aid of references, set up the system in accordance with the TM-08936A-13&P. (1171.01.05a)

b. Given the necessary equipment, tools and materials, without the aid of references, conduct operator maintenance in accordance with Tm-08922A-14. (1171.04.01c)

c. Given the necessary equipment, tools and materials, without the aid of references, start the system in accordance with the TM-08922A-14. (1171.01.05b)

d. Given the necessary equipment, a water source, tools and materials, without the aid of references, shutdown the system in accordance with the TM-08936A-13&P. (1171.01.05c)

e. Given the necessary equipment, a water source, tools and materials, without the aid of references, prepare the system for storage in accordance with the TM-08936A-13&P. (1171.01.05d)

BODY:

1. Characteristics and capabilities:

a. The Forward Area Water Point Supply System also known as, FAWPSS is the smallest water storage configuration within the Marine Water Supply Support System. FAWPSS distributes water with 4 separate nozzles.

It's the only system that is capable of rapid deployment to forward area troops. FAWPSS is able to be transported by air or ground. The water storage tanks can be pulled behind vehicles to forward areas.

2. Description of components:

a. The FAWPSS consists of:

(1) 6-500 gallon cylindrical tanks

(2) 1-125 GPM pump

(3) Connectors

(4) Hoses (10ft. 2in., 25ft. 2in., 25ft. 1-1/2in.)

(5) Fittings

(6) 4-Dispensing Nozzles

(7) 1-Lister Bag

(8) 2-Tripods

b. The drum is a durable, non-vented, collapsible, rubber container.

c. When the 500-gallon drum is filled to maximum capacity, it weighs approximately 4,645 lbs. It weighs approximately 275 lbs empty.

d. The constructions of the drums are similar to that of a truck tire. It is rayon cord impregnated with water resistant, synthetic rubber. Interior front plates are attached by wire rope cable assemblies to form a closure; and for support of the interior of the drum.

e. The length of the drum is 80 inches; the width of the drum is 46 inches; and the height is 46 inches.

f. The 500-gallon drum is cylindrical in shape and can be transported behind cargo trucks, with a towing and lifting yoke, not to exceed 10 mph (miles per hour).

g. The 500-gallon drum can also be air lifted to desolate areas needing water. When the drum is collapsed, cargo trucks can transport it.

h. The 125 GPM pump has hoses, connections, and fittings that are used for dispensing potable water to troops.

3. Set up procedures:

a. Site selection: Install the FAWPSS keeping the following in mind:

(1) Firm flat level ground

(2) Adequate cover and concealment

(3) Sufficient road nets

(4) Good Drainage

b. Installation: Place the 125 GPM pump centered on the water drums facing the 2″ elbow couplers, approximately 20 feet away.

(1) Suction side: Connect hoses, beginning with the suction side of the pump.

(a) Attach the male end of a 2″ x 10′ suction hose (hard) to the female end of the pump.

(b) Attach a male to male adapter to the female end of a 2″ x 10′ suction hose.

(c) Attach the female end of a wye fitting to the male adapter.

(d) Attach a valve assembly to each end of the wye fitting.

(e) Attach the female end of a 2″ x 10′ suction hose to each of the male ends of the valve assembly.

(f) Attach the male ends of 2″ x 10′ suction hoses to the 2″ elbow couplers on the 500-gallon tanks.

(2) Discharge side: When the suction side of the pump is all connected, then start connecting the discharge hoses.

(a) Attach the female end of a 2″ x 10′ discharge hose (collapsible) to the male end of the pump.

(b) Attach the female end of a wye fitting to the male end of the 2″ x 10′ discharge hose.

(c) Attach the female end of a 2″ x 25′ discharge hose to each of the male ends of the wye fitting.

(d) Attach the female end of a 2″ wye fitting to each of the male ends of the 2″ x 25′ discharge hoses.

(e) Attach a 1-1/2″ reducer to the ends of the 2″ wye fittings.

(f) Attach the female end of four 1-1/2″ x 25′ discharge hoses to the male ends of the reducers.

(g) Set-up a tripod stand close to the unconnected male ends of the 1-1/2″ x 25′ discharge hoses.

(h) Attach a 1-1/2″ distribution nozzle to each of the 1-1/2″ hoses and hook the nozzles to the tripod stand

c. Preposition valves and switches:

(1) Turn fuel shut off valve to on position.

(2) Position the throttle, (located under the fuel tank), halfway open.

(3) Push the decompression lever down

d. Conduct before operation checks and services:

(1) Check the chlorine residual of the water in the storage and dispensing drums to ensure that water is potable.

(2) Inspect the 125 GPM pump for cracks or leaks.

(3) Inspect the fuel tank cap for leaks, a clogged strainer, and ensure fuel cap gasket is in place.

(4) Inspect the fuel filter for leaks or clogs, and ensure the gasket is in place.

(5) Check oil level; and add oil as needed.

(6) Inspect the air restrictor indicator. If the red service level indicator is visible, clean or replace the filter, and push the indicator back in place.

(7) Open one of the valves, so water flows from one of the storage and dispensing drums into the hoses. This ensures the pump is primed.

4. Start up Procedures:

a. Pull the pull rope.

b. Once the engine has started, position the throttle all the way open, for proper operation.

5. During Operation Checks and Services:

a. Listen to the pump during operation for unusual noises or vibrations.

b. Periodically, patrol the entire system for any leaks.

NOTE: If a leak occurs while the unit is in operation, stop and replace the defective gaskets, hoses, or component.

c. Check each of the four distribution nozzles to ensure they operate at full flow and that no foreign matter is present. Flush the line until they are clean if necessary.

d. Fill the users water containers and tanks on demand.

e. When a water drum becomes empty. The following steps will be taken to switch drums:

(1) Start the flow from a full drum by opening the water valve. Close the water valve on the empty water drum. This will ensure a steady flow of water for dispensing.

(2) Disconnect the suction hose from the elbow coupler on the empty storage drum.

(3) Move the empty storage drum out of the way.

(4) Use a towing and lifting yoke to position a full water storage and dispensing drum so that the side with the 2″ elbow coupler is close enough to the suction hose to permit attachment.

(5) Attach the suction hose to the elbow coupler on the storage and dispensing drum.

6. Shutdown procedures:

a. Drain the water from partially filled dispensing drum or drums by operating one of the dispensing nozzles.

b. Turn off the engine on the 125-GPM pump, and disconnect the suction and discharge hoses.

7. Perform after operation checks and services:

a. Inspect the pump for leaks and cracks.

b. Inspect the fuel filter for leaks and clogs.

c. Check the oil level; add oil as needed.

d. Report deficiencies.

8. Storage procedures:

a. Drain the pump and place it in the storage box.

b. Disconnect the suction hoses from empty storage and dispensing drums, drain and cap the hoses, and cap off the drums.

c. Disconnect, drain, and cap all of the other hoses.

d. Fold empty storage and dispensing drums and pack them in the storage boxes.

e. Pack hoses and supporting equipment inside storage boxes.

f. Ensure all equipment is clean before placing it inside storage boxes.

REFERENCES:

TM-08936A-13&P
TM-08922A-14